

## REMARKS

The Office Action dated August 23, 2006 has been received and carefully noted. The above amendments to claims 1, 11, 14, 24, 27, 37, and 42-46, along with the following remarks, are submitted as a full and complete response thereto. New claim 47 has been added to the application, and claims 5, 10, 18, 23, 31, and 36 have been withdrawn from consideration, without prejudice or disclaimer. However, no new matter has been introduced. Therefore, claims 1-4, 6-9, 11-17, 19-22, 24-30, 32-35, and 37-47 are pending and submitted for consideration herein.

Claims 1-7, 9, 13-20, 22, 26-33, 35, 39, 40, and 43-46 stand rejected under 35 USC §102(e) over *Hunte* (US Patent No. 6,665,538). The Office Action took that position that *Hunte* teaches each and every limitation recited in the rejected claims. Applicants traverse the rejection and respectfully submit that *Hunte* fails to teach or disclose each and every element recited in claims 1-7, 9, 13-20, 22, 26-33, 35, 39, 40, and 43-46.

Applicants' independent claim 1, upon which claims 2-4, 6-9, and 11-13 directly or indirectly depend, recites a method for deciding on handover in a cellular communication system. The method includes collecting bit rate information related to a mobile station, when the mobile station is moving from a first cell to a second cell wherein the mobile station initially has a connection to at least the first cell providing a certain bit rate to the mobile station. The collecting process includes measuring the bit

rate provided to the mobile station by the first cell and/or a bit rate provided to the mobile station by the second cell, and using the bit rate information for deciding on when handover of the mobile station from the first cell to the second cell should be carried out by triggering the mobile station handover from the first cell to the second cell when the bit rate provided by the first cell and/or the bit rate provided by the second cell fulfils a predetermined condition(s).

Applicants' independent claim 14, upon which claims 15-17, 19-22, and 24-26 directly or indirectly depend, recites a cellular communication system. The system includes cells and a mobile station having a connection to at least a first cell providing a certain bit rate to the mobile station. The system is configured such that when the mobile station is moving from the first cell to a second cell, to collect bit rate information related to the mobile station by measuring the bit rate provided to the mobile station by the first cell and/or a bit rate provided to the mobile station by the second cell, and to use the bit rate information to decide on when mobile station handover from the first cell to the second cell should be carried out by triggering the execution of handover of the mobile station from the first cell to the second cell when the bit rate provided by the first cell and/or the bit rate provided by the second cell fulfils a predetermined condition(s).

Applicants' independent claim 27, upon which claims 28-30, 32-35, and 37-41 directly or indirectly depend, recites a system element for controlling handovers in a cellular communication system. The system includes cells and a mobile station having a connection to at least a first cell providing a certain bit rate to the mobile station, wherein

the system element is configured to conduct certain operations when the mobile station is moving from the first cell to a second cell. The operations may include collecting bit rate information related to the mobile station by measuring the bit rate provided to the mobile station by the first cell and/or a bit rate provided to the mobile station by the second cell, and using the bit rate information for deciding on when handover of the mobile station from the first cell to the second cell should be carried out by triggering the execution of handover of the mobile station from the first cell to the second cell when the bit rate provided by the first cell and/or the bit rate provided by the second cell fulfils a predetermined condition(s).

Applicants' independent claim 43 recites a method for deciding on handover in a cellular communication system. The method includes collecting bit rate information related to a mobile station, the collecting comprising measuring a bit rate provided to the mobile station by a first cell and/or a bit rate provided to the mobile station by a second cell. The method further includes using the bit rate information for deciding on handover of the mobile station from the first cell to the second cell, the deciding comprising deciding to perform the mobile station handover from the first cell to the second cell when the bit rate provided by the first cell and/or the bit rate provided by the second cell fulfils a predetermined condition(s), wherein the mobile station initially has a connection to at least the first cell providing a certain bit rate to the mobile station.

Applicants' independent claim 44 recites a cellular communication system. The system includes cells and a mobile station. The system is configured to collect bit rate

information related to the mobile station by measuring a bit rate provided to the mobile station by a first cell and/or a bit rate provided to the mobile station by a second cell, and use the bit rate information for deciding on mobile station handover from the first cell to the second cell such that the system is configured to decide to trigger the execution of handover of the mobile station from the first cell to the second cell when the bit rate provided by the first cell and/or the bit rate provided by the second cell fulfils a predetermined condition(s).

Applicants' independent claim 45 recites a system element for controlling handovers in a cellular communication system comprising cells and a mobile station. The system element is configured to collect bit rate information related to the mobile station by measuring a bit rate provided to the mobile station by a first cell and/or a bit rate provided to the mobile station by a second cell. The system element is further configured to use the bit rate information for deciding on handover of the mobile station from the first cell to the second cell such that the system element is configured to decide to trigger the execution of handover of the mobile station from the first cell to the second cell when the bit rate provided by the first cell and/or the bit rate provided by the second cell fulfils a predetermined condition(s).

Applicants' independent claim 46 recites a mobile station for use in a cellular communication system having cells. The mobile station being configured to collect bit rate information related to the mobile station by measuring a bit rate provided to the mobile station by a first cell and/or a bit rate provided to the mobile station by a second

cell. The mobile station further being configured to use the bit rate information for deciding on handover of the mobile station from the first cell to the second cell such that the mobile station is configured to decide to trigger the execution of handover of the mobile station from the first cell to the second cell when the bit rate provided by the first cell and/or the bit rate provided by the second cell fulfils a predetermined condition(s).

Applicants submit that each of claims 1-7, 9, 13-20, 22, 26-33, 35, 39, 40, and 43-46 recite subject matter that is not taught or disclosed by *Hunte*. More particularly, *Hunte* teaches a method and apparatus for determining a cell border between a first and second cells in a cellular communications system. In the method and apparatus of *Hunte*, communications between mobile stations can be effected at different effective transfer rates, dependent upon communication conditions, and further, can be handed over from the first cell to the second cell. Information relating to the transfer rates of communications with mobile stations immediately before and after cell handover from the first cell to the second cell is stored. The stored information is subject to analysis and processing, and in dependence on the results the cell border between the first and the second cell is determined such that, at handover, transfer rates before and after handover are more likely or most likely to be the same. Further, in *Hunte*, information regarding transfer rates immediately before and after cell handover is stored. The stored information is analyzed to determine the cell border between the first and second cell and the analysis is conducted after the cell handover.

However, *Hunte* does not teach or disclose collecting bit rate information and using this information to decide when a handover should be triggered, as recited in each of claims 1-7, 9, 13-20, 22, 26-33, 35, 39, 40, and 43-46. More particularly, *Hunte* fails to teach or disclose collecting of bit rate information comprising measuring the bit rate information provided to the mobile station by the first cell or the second cell. Step A in Figure 6 of *Hunte* (referred to by the Office Action in the rejection) merely suggests recording history statistics of coding schemes, without teaching or disclosing the collecting limitation recited in each of the rejected claims.

Further, *Hunte* also does not teach or disclose the recited limitation of using the bit rate information to determine when to trigger a handover. The Office Action refers to step B in Figure 6 of *Hunte* as teaching this limitation, however, Applicants submit that step B merely refers to processing history statistics to determine whether adjustment of cell borders appears favorable. Nowhere in the discussion of step B in *Hunte* is it discussed that a handover decision is based upon stored bit information. In fact, step B of *Hunte* takes place after the handover is already started, which supports Applicants' position that *Hunte* does not teach using the bit information to trigger the handover, as recited in the rejected claims.

Further still, column 5, lines 8-27 of *Hunte*, which are also referred to in the Office Action as teaching the triggering of the handover by analyzing the bit information, merely describes properties of dynamic link adaptation, but does not contain any teaching or disclosure that is in any sufficient to anticipate Applicants' recited limitation of

analyzing stored bit information to trigger a handover process, as recited in each of claims 1-7, 9, 13-20, 22, 26-33, 35, 39, 40, and 43-46. Therefore, in view of the above noted distinctions, Applicants submit that *Hunte* clearly fails to anticipate each and every limitation recited in claims 1-7, 9, 13-20, 22, 26-33, 35, 39, 40, and 43-46. As such, reconsideration and withdrawal of the rejection of these claims is respectfully requested.

Claims 8, 21, and 24 stand rejected under 35 USC §103(a) as being unpatentable over *Hunte* in view of *Santhoff* (US Patent No. 6,907,244). The Office Action took the position that *Hunte* teaches each and every limitation recited in claims 8, 21, and 24, except for the sub-area within the coverage area. However, the Office Action cites to *Santhoff* as teaching this limitation, and therefore, the Office Action cites to *Santhoff* as teaching this limitation, and therefore, the Office Action concluded that it would have been obvious for one of ordinary skill in the art to have combined the teaching of the cited references to generate Applicants' claimed invention. Applicants traverse this rejection and respectfully submit that the cited combination of references, when taken alone or in combination, fails to teach, show, or suggest each and every limitation recited in claims 8, 21, and 24.

Applicants independent claims 1 and 14, the independent claims from which each of claims 8, 21, and 24 depend, are presented above. *Hunte* is also discussed above. *Santhoff* teaches dynamic channel re-assignment capability to mobile units, base stations, and sectors within base station coverage areas. The wireless devices may include impulse radio communication devices such as ultra-wideband radio (also known as

digital pulse wireless) communication devices. Effective management is achieved by having the mobile unit maintain dual communication with a linked base station and an adjoining base station.

However, *Santhoff* does not teach, show, or suggest collecting bit rate information related to a mobile station moving between cells and using the bit rate information for deciding on when handover of the mobile station from the first cell to the second cell should be carried out by triggering the mobile station handover from the first cell to the second cell when the bit rate provided by the first cell and/or the bit rate provided by the second cell fulfils a predetermined condition, as recited in each of claims 8, 21, and 24. Therefore, as noted above, Applicants submit that *Hunte* also fails to teach, show, or suggest these limitations, and therefore, Applicants submit that *Santhoff* fails to further the teaching of *Hunte* to the level necessary to properly support an obviousness rejection. Reconsideration and withdrawal of the rejection of claims 8, 21, and 24 is respectfully requested.

Claims 10, 23, and 36 stand rejected under 35 USC §103(a) as being unpatentable over *Hunte* in view of *Amerijoo* (US Patent No. 6,728,217). The Office Action took the position that *Hunte* teaches each and every limitation recited in claims 10,23, and 36, except for measuring the bit rate. However, the Office Action cites to *Amerijoo* as teaching this limitation, and therefore, the Office Action cites to *Amerijoo* as teaching this limitation, and therefore, the Office Action concluded that it would have been obvious for one of ordinary skill in the art to have combined the teaching of the cited



references to generate Applicants' claimed invention. Applicants traverse this rejection and respectfully submit that the cited combination of references, when taken alone or in combination, fails to teach, show, or suggest each and every limitation recited in claims 10, 23, and 36.

Applicants independent claims 1 and 14, the independent claims from which each of claims 10, 23, and 36 depend, are presented above. *Hunte* is also discussed above. *Amerijoo* teaches a telecommunications system configured to improve the quality of data calls within a cellular network by dynamically changing the air interface data rate for transparent and non-transparent data services. As the quality of a higher data rate radio link deteriorates below a specified upper quality threshold, a change of channel coding to a lower data rate is ordered by the network. If the radio link quality measurements after a specified period of time indicate that the quality level has exceeded a specified lower quality threshold, the data rate is changed back to the higher data rate.

However, *Amerijoo* does not teach, show, or suggest collecting bit rate information related to a mobile station moving between cells and using the bit rate information for deciding on when handover of the mobile station from the first cell to the second cell should be carried out by triggering the mobile station handover from the first cell to the second cell when the bit rate provided by the first cell and/or the bit rate provided by the second cell fulfils a predetermined condition, as recited in each of claims 10, 23, and 36. Therefore, as noted above, Applicants submit that *Hunte* also fails to teach, show, or suggest these limitations, and therefore, Applicants submit that *Amerijoo*

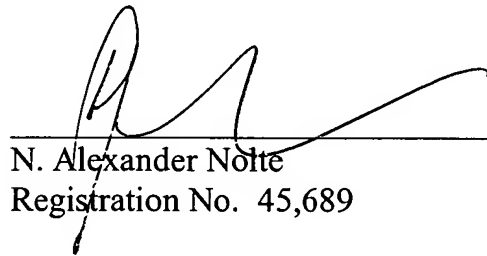
fails to further the teaching of *Hunte* to the level necessary to properly support an obviousness rejection. Reconsideration and withdrawal of the rejection of claims 10, 23, and 36 is respectfully requested.

In conclusion, Applicants submit that each of claims 1-4, 6-9, 11-17, 19-22, 24-30, 32-35, and 37-47 recite subject matter that is not taught or disclosed by the cited combination of references, when taken alone or in combination. Therefore, reconsideration and withdrawal of the rejection of these claims is respectfully requested. Claims 1-4, 6-9, 11-17, 19-22, 24-30, 32-35, and 37-47 are pending and submitted for consideration herein.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the Applicants' undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the Applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,

  
N. Alexander Nolte  
Registration No. 45,689

**Customer No. 32294**  
SQUIRE, SANDERS & DEMPSEY LLP  
14<sup>TH</sup> Floor  
8000 Towers Crescent Drive  
Tysons Corner, Virginia 22182-2700  
Telephone: 703-720-7800  
Fax: 703-720-7802  
NAN:kh  
Enclosures: Additional Claim Fee Transmittal  
Check No. 15434